

IN THE CLAIMS:

- 1-7. (Previously canceled)
8. (Currently amended) A biosorbent composition comprising a support material comprising a an acid-treated ceramic or perlite and bearing an exterior coating of chitosan thereon.
9. (Previously amended) The biosorbent composition of claim 8 wherein said biosorbent composition is configured to remove heavy metals from wastewater upon contact of said biosorbent composition with the wastewater for a sufficient amount of time.
10. (Previously amended) The biosorbent composition of claim 8 wherein said support material comprises ceramic alumina, ceramic silica or both.
11. (Previously amended) The biosorbent composition of claim 10 wherein said support material is ceramic alumina, ceramic silica or a combination thereof.
12. (Previously amended) The biosorbent composition of claim 10 wherein said support material is perlite.
13. (Previously amended) The biosorbent composition of claim 8 wherein said exterior coating is exposed to a fluid environment.
14. (Previously amended) The biosorbent composition of claim 8 wherein said chitosan is in gel form.
15. (Currently amended) A process for treating an aqueous system containing a heavy metal, the process comprising adding to the aqueous system a biosorbent composition, the biosorbent composition comprising a support material comprising a an acid-treated ceramic or perlite and bearing an exterior coating of chitosan thereon.

16. (Previously amended) The process of claim 15 wherein said support material comprises a ceramic.

17. (Previously amended) The process of claim 15 wherein said support material is a ceramic.

18. (Previously amended) The process of claim 15 wherein the aqueous system is an aqueous waste stream.

19. (Previously amended) The process of claim 17 wherein the support material is ceramic alumina, ceramic silica, or a combination thereof.

20. (Previously canceled)

21. (Currently amended) A process for treating an aqueous system containing a heavy metal, the process comprising adding to the aqueous system, ~~said~~ the biosorbent composition of claim 11.

22. (Previously canceled)

23. (Previously amended) The biosorbent composition of claim 10 wherein said chitosan is in dried gel form.

24. (Previously amended) The process of claim 15 wherein said support material comprises perlite.

25. (Previously amended) The biosorbent composition of claim 8 wherein said chitosan is adhered to the support material by electrostatic forces, van der Waals forces and/or hydrogen bonding.

26. (Previously amended) A process for treating an aqueous system containing a heavy metal, the process comprising adding the biosorbent composition of claim 25 to the aqueous system.

27. (Previously amended) The biosorbent composition of claim 8 wherein the biosorbent composition consists essentially of a support material comprising a ceramic or perlite and bearing an exterior coating of chitosan thereon.

28. (Previously amended) A process for treating an aqueous system containing a heavy metal, the process comprising adding the biosorbent composition of claim 27 to the aqueous system.

29. (Previously amended) The biosorbent composition of claim 8, wherein the support material is ultrafine ceramic alumina.

30. (Currently amended) The biosorbent composition of claim 8, wherein said support material is ceramic alumina, and said exterior coating is derived from ~~acid-treated~~ chitosan gel.

31. (Previously amended) The biosorbent composition of claim 11, wherein the support material bears a double coating of chitosan.

32. (Previously amended) The biosorbent composition of claim 8, wherein the chitosan has an affinity for adsorption of cesium, thorium, lead, mercury, arsenic, chromium, copper, or nickel from wastewater.

33. (Previously presented) The biosorbent composition of claim 13 wherein the fluid environment is air or water containing a contaminant removable by exposure to the biosorbent composition.

34. (Previously presented) The biosorbent composition of claim 33 wherein the water is wastewater.

35. (Previously presented) The biosorbent composition of claim 35 wherein the contaminant is a heavy metal.

36. (Previously presented) The biosorbent composition of claim 14 wherein the fluid environment is air or water containing a contaminant removable by exposure to the biosorbent composition.

37. (Previously presented) The biosorbent composition of claim 36 wherein the water is wastewater.

38. (Previously presented) The biosorbent composition of claim 37 wherein the contaminant is a heavy metal.

39. (Previously presented) The process of claim 17 wherein said support material is ceramic alumina or ceramic silica, the aqueous system comprises an aqueous fluid and adding the biosorbent composition exposes the exterior coating to the aqueous fluid.

40-51. (Withdrawn)

52. (New) A biosorbent composition comprising a support material comprising a ceramic or perlite and bearing an exterior coating of chitosan thereon, wherein said support material is prepared by mixing the support material with an acid to form a mixture and filtering and washing the mixture to prepare a washed mixture.

53. (New) The biosorbent composition of claim 52 wherein said biosorbent composition is configured to remove heavy metals from water upon contact of said biosorbent composition with the wastewater for a sufficient amount of time.